

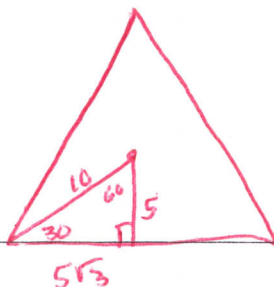
Name Key

Date _____

Regular Triangular Pyramids

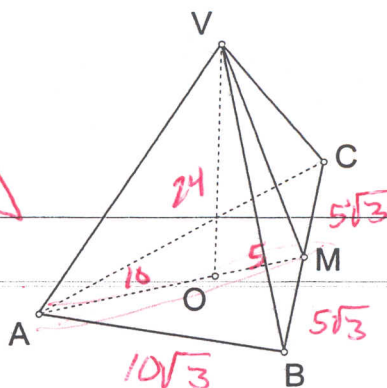
1. $OM = \underline{5}$
 $OA = \underline{10}$
 $VA = \underline{26}$
 $AB = 10\sqrt{3}$
 $VO = \underline{24}$

$\sqrt{676}$



$B = \frac{1}{2} 15 \cdot 10\sqrt{3}$
 $75\sqrt{3}$

Volume = $\underline{600\sqrt{3}}$ $\frac{1}{3} 24 \cdot 75\sqrt{3}$



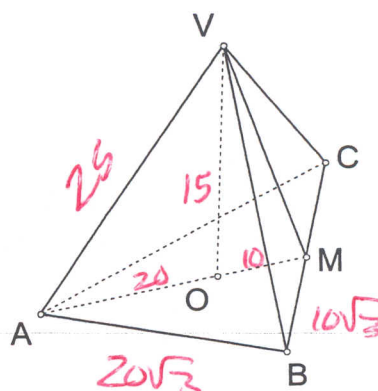
2. $OM = \underline{10}$
 $OA = \underline{20}$
 $VA = \underline{25}$
 $AB = 20\sqrt{3}$
 $VO = \underline{15}$
 $VM = \underline{5\sqrt{3} \approx 18.0}$

$\sqrt{225}$

$100 + 225 = 325$
 $5\sqrt{13}$

LA = $\underline{936.7}$ $(540\sqrt{3})$
 $V = \underline{1500\sqrt{3}}$ $\frac{1}{3} 60\sqrt{3} \cdot 18.0$

$\frac{1}{3} 300\sqrt{3} \cdot 15$



$\frac{1}{2} 20\sqrt{3} \cdot 30$
 $300\sqrt{3}$

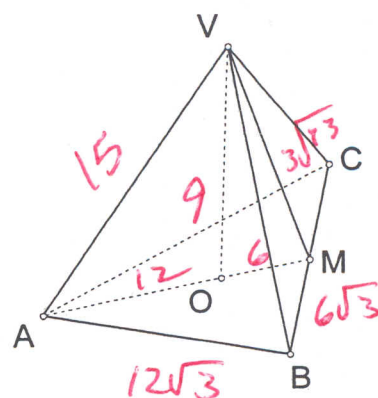
3. $OM = \underline{6}$
 $OA = \underline{12}$
 $VA = \underline{15}$
 $AB = 12\sqrt{3}$
 $VO = \underline{9}$
 $VM = \underline{3\sqrt{3} \approx 10.8}$

$81 + 144 = 225$

$81 + 36 = \sqrt{117}$
 $3\sqrt{13}$

LA = $\underline{337.2}$
 $TA = \underline{524.3}$
 $V = \underline{561.2}$ $\frac{1}{3} 36\sqrt{3} \cdot 10.8$

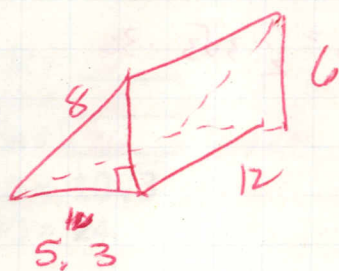
$324\sqrt{3}$ $\frac{1}{3} 187.1 \cdot 9$



$B = \frac{1}{2} 12\sqrt{3} \cdot 18$
 $108\sqrt{3}$
 187.1

p659

3.



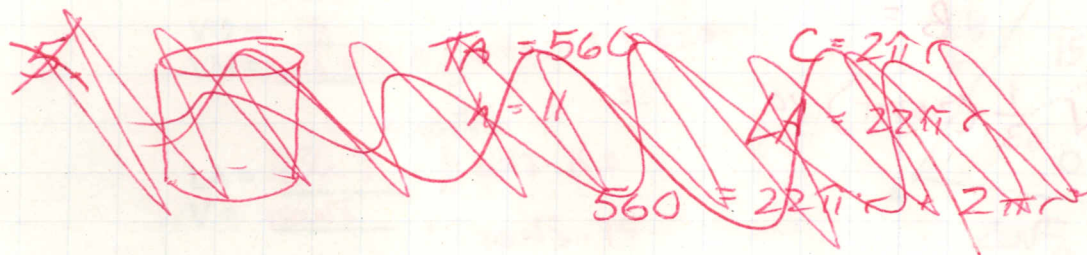
$$LA = ph$$

$$p = 19.3$$

$$LA = 19.3 \cdot 12 = 231.5 m^2$$

p659 3-4
p670 1-5
p701 2-4

$$4. TA = 231.5 + \left(\frac{1}{2} \cdot 6 \cdot 5 \cdot 3 \right) = 247.4 + 15.9 = 263.3 m^2$$



p670

1. $p = 48$
 $B = 144$

$$LA = \frac{1}{2} \cdot 48 \cdot 11.7 = 279.9$$

$$TA = 279.9 + 144$$

$$423.9 cm^2$$

$$l = 11.7$$

2. $p = 24$

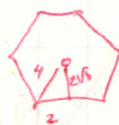
$$B = \frac{1}{2} \cdot 2\sqrt{3} \cdot 24 = 24\sqrt{3}$$

$$LA = \frac{1}{2} \cdot 24 \cdot 11 = 132$$

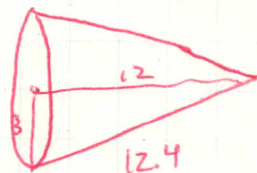
$$132$$

$$TA = 132 + 24\sqrt{3}$$

$$173.6 in^2$$



3.



$$p = 6\pi$$

$$B = 9\pi$$

$$LA = \frac{1}{2} \cdot 6\pi \cdot 12.4 = 37.2\pi$$

$$TA = 37.2\pi + 9\pi = 46.2\pi = 145.1 ft^2$$

4.



5.

$$LA = \frac{1}{2} pl$$

$$123 = \frac{1}{2} \cdot 20\pi \cdot l$$

$$16\pi$$

$$3.9 in = l$$

$$C = 12\pi$$

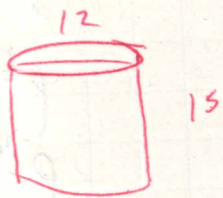
$$B = 36\pi$$

$$LA = \frac{1}{2} \cdot 12\pi \cdot 6.3$$

$$TA = 37.8\pi + 36\pi = 73.8\pi = 231.8 m^2$$

p 761

2



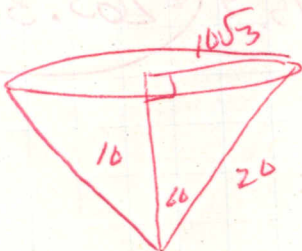
$$V = 36\pi \cdot 15$$

3. $V = 54\sqrt{3} / 10 = 540\sqrt{3} = 935.3 \text{ cm}^3$

$$B = \frac{1}{2} 3\sqrt{3} \cdot 36$$



4.



$$B = \frac{(10\sqrt{3})^2 \pi}{300\pi}$$

$$V = \frac{1}{3} (300\pi) 10$$

